

Summary of Funding Information

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Template Name	BY2020
Is this investment a consolidated business case?	No
Consolidated Business Case Parent Investment(s)	
Investment Name	BFS - Budget Formulation System
Investment Revision Number	33
Point of Contact	Chin, Derek
Revision Comment	
Full UPI/UII Code	020-000010070 00-00-02-16-02-00
Office of Investment	OCFO
Current EPA Investment Type	Medium
OMB Short Description	Budget Formulation System (BFS) formerly titled New Budget Formulation System (NBFS) will be EPA's future budgeting system . Budget Automation System (formerly titled Budget Formulation System) is EPA's current budgeting system. Development began in 2014.

Briefly describe the investment's purpose, goals, and current or anticipated benefits (quantitative and/or qualitative). Include the investment's specific contribution to mission delivery or agency management support functions and identify key customers, stakeholders, and other beneficiaries.

OCFO is replacing the BAS system with the Budget Formulation System with development having begun in 2014. The purpose of the Budget Formulation System will be to provide an integrated budgeting and performance management system for the entire agency, with the goal of supporting the development of congressional justifications, OMB submissions, operating plans, and other important budget functions the offices of the agency require. The project is also of interest to other federal agencies and we will work with them to review requirements to potentially develop a service provider version. The primary beneficiaries include, the agency, OMB, and Congress, and other federal agencies if successful in building partnerships.

Development of new software began in 2014. Benefits of the application include its accessibility through a web application and a user friendly flexible structure. Currently, EPA uses an infrastructure/platform-as-a-service cloud environment. The system is designed to provide the option of being used by other agencies. O&M costs incurred beginning in 2016.

Based on the Agency IRM Strategic Plan, describe how the investment contributes to the agency target EA and its description in the Enterprise Roadmap. Include a description of how the investment includes or will achieve programmatic or technical innovation.

BFS will contribute to the agency target EA by providing funding data on other EA investments. By providing this funding data, the EPA will be able to appropriately evaluate the costs of all systems while still trying to achieve its strategic goals.

This is best represented in CPIC submissions. CPIC submissions will pull data from BFS to report on each of the agency's system costs in order to fulfill Enterprise Roadmap objectives.

The agency's budget formulation processes are used by all the investments to inform the agency's EA Program to support the Target architecture and enterprise Roadmap.

BFS will use cloud computing as a technical innovation. As a cloud enabled application, the EPA will be able to store its data offsite on a third party's server. This will reduce the agency's cost of purchasing and maintaining its own server. Also, BFS will no longer have a client-server relationship, but will be introduced as a web enabled application, allowing access to headquarter, regional, and teleworking employees. In addition, the EPA will be able to develop BFS in conjunction with other agencies in order to share costs. BFS is envisioned as a shared service across the federal government.

Investment Summary/Description

BAS will continue to operate in its current state in FY 2015, while also continuing development that starts in FY 2014 on the new BFS system. BAS will be transitioning from its old legacy status to an improved system.

The current BAS system has been in production since 1997 and will be retired for the new BFS system in 2017. The BFS system is being developed in a module phased approach. Until all BFS modules are completed in 2017, BAS will maintain minimum funding to operate.

The new BFS system will provide an integrated budgeting and performance management system for the entire agency for congressional justifications, OMB, operating plan, and other miscellaneous functions.

In which year did or will this investment begin? (Specify year - e.g., 2013)? 2014

In which year will this investment reach the end of its estimated useful life? (specify year - e.g., 2021) 2030

BY 2017 Internal Summary of Funding Estimates Table (include non-pay and pay dollars)

Funding Type	2015 (PY)	2016 (CY)	2017 (BY)
Planning	0	0	0
DME (Excluding Planning)	1265	1215	0
O&M	434	500	1250

Additional Questions

Functional/Business Sponsor Email bloom.david@epa.gov

Functional/Business Sponsor Name David Bloom

Functional/Business Sponsor Phone Number 2025641151

Functional/Business Sponsor Phone Number Extension

Functional/Business Sponsor Title Deputy CFO

Integrated Program Team (IPT) Contact Information

OMB ID	IPT Member Role	Title	Name	Phone Number	Extension	Email	Include In OMB Dashboard
	IT PM		Chin, Derek J	2025641895		chin.derek@epa.gov	Omit Synchronization
	Business Process Owner		Terris, Carol	2025640533		terris.carol@epa.gov	Omit Synchronization
	Contract Specialist		Herzfeld, Jackye	2025644599		herzfeld.jackye@epa.gov	Omit Synchronization
	IT Specialist		Herzfeld, Jackye	2025644599		herzfeld.jackye@epa.gov	Omit Synchronization
	Security Specialist		Kim, Eric	2025646203		kim.eric@epa.gov	Omit Synchronization

Primary Strategic Goal Multiple-Goal IT Investments

Primary BRM Mapping (FEA BRM v3.1) 101-Budget Formulation

Secondary BRM Mapping #1 (FEA BRM v3.1) 104-Strategic Planning

Secondary BRM Mapping #2 (FEA BRM v3.1)

Secondary BRM Mapping #3 (FEA BRM v3.1)

Secondary BRM Mapping #4 (FEA BRM v3.1)

The list of BRM mappings can be obtained from the following url: <http://www.whitehouse.gov/omb/e-gov/fea>

Did you conduct an alternatives analysis for this investment? Yes

If yes, describe the results of the alternatives analysis.

Two rounds of alternative analysis were performed. One under the auspices of OMB's Budget Line of Business activity, which looks at systems across the federal government. The other was a more tailored EPA-specific analysis.

Other existing government and private sector systems were looked at as options by the EPA, but no other systems met EPA's requirements other than the current BAS or the new Budget Formulation System. Development of Budget Formulation System is a preferred option. Alternatives described, below.

If no analysis is planned, please briefly explain why:

List and describe three alternatives identified for this investment (may include Status Quo).

1. Status Quo - Will require using Citrix to maintain usability when the EPA transitions to Windows 7. However, there are other issues associated with the software, and replacement is preferred over using existing oracle versions that have ongoing software problems. In addition, there are functionality enhancements the EPA needs that will provide significant efficiencies in staff time, and also enable offices to eliminate local systems. In addition, the current system is written to interact with Lotus Notes database which is currently being migrated to the Microsoft suite of tools. The status quo is becoming less of a viable option due to supporting applications and inherent outdated technologies.

2. Rewrite and update - As described above, enhancements in functionality have been identified by the EPA that will save significant staff time, and provide an enterprise solution that replaces a number of locally maintained smaller systems. Other agencies have indicated interest in using a system with the functions in EPA's BAS / BFS if configured to their budget structures. The Budget Formulation System is being offered as a Shared Service to other agencies while utilizing the cloud hosting model, creating savings for the federal government overall and meeting the recent guidance from OMB. To meet that goal, BFS has been established as a new Working Capital Fund service to other agencies.

3. Modify existing government systems - The review looked at systems in place across a number of other agencies. These systems were generally rudimentary and would prove more expensive to modify them than to proceed with the Budget Formulation System development.

What is the impact of NOT funding this investment?

The budgetary information of the agency cannot be formulated without the BFS investment. Thus, the agency and external stakeholders cannot make the appropriate budget decisions without this investment.

Not replacing the legacy system will mean the agency continues to use outdated technology with increasing costs of maintenance, and forgoes the advantages and efficiencies expected from new functionality that is planned. In addition, the agency and the wider federal government would lose the potential benefit of providing a federal shared service in this area.

As noted before, this CPIC provides a transition from the agency's old legacy status to an improved system. The current BAS system has been in production since 1997 and will be retired for the BFS system in 2017.

Does the investment have a Risk Management Plan? Yes

What is the date of the risk management plan? 6/30/2014

Infrastructure-as-a-Service (IaaS) Costs Table

Cloud Model	PY	CY	BY
Public Cloud	0	0	0
Private Cloud	0	0	0
Community Cloud	65	65	65
Hybrid Cloud	0	0	0

Platform-as-a-Service (PaaS) Costs Table

Cloud Model	PY	CY	BY
Public Cloud	0	0	0
Private Cloud	0	0	0
Community Cloud	0	0	0
Hybrid Cloud	0	0	0

Software-as-a-Service (SaaS) Costs Table

Cloud Model	PY	CY	BY
Public Cloud	0	0	0
Private Cloud	0	0	0
Community Cloud	0	0	0
Hybrid Cloud	0	0	0

Project Execution Data

Projects Table

Projects Table

O M B I D	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life Cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
	000010070A	Budget Formulation System (BFS) - Requirements Gathering	Collect requirements for the new Budget Formulation System and start reaching out to other Agencies who would like to get involved	03/01/2014	07/31/2014	275	Iterative	Jackye Herzfeld	No certification, but with 4 or more years PM experience (within the last five years)	2025644599		herzfeld.jackye@epa.gov	Yes			N/A				Omit Synchronization
	000010070B	Budget Formulation System - Phase 1	Design, develop, and test the Core components of the system	08/01/2014	07/31/2015	1895	Iterative	Jackye Herzfeld	No certification, but with 4 or more years PM experience (within the last five years)	2025644599		herzfeld.jackye@epa.gov	Yes			N/A				Omit Synchronization
	000010070C	Budget Formulation System - Phase 2	Design, develop, and test additional EPA required functionalities	08/01/2015	01/30/2016	772	Iterative	Jackye Herzfeld	No certification, but with 4 or more	2025644599		herzfeld.jackye@epa.gov	Yes			N/A				Omit Synchronization

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
			es						years PM experience (within the last five years)											
	000010070D	Budget Formulation System - Phase 3	Design, develop, and test additional EPA required functionalities	02/01/2016	06/30/2016	772	Iterative	Jack Herzfeld (retired)	No certification, but with 4 or more years PM experience (within the last five years)	2025644599		herzfeld.jackye@epa.gov	Yes			N/A				Omit Synchronization
	000010070E	Budget Formulation System - Phase 4	Design, develop, and test additional EPA required functionalities	07/01/2016	12/31/2016	780	Iterative	Jack Herzfeld (retired)	No certification, but with 4 or more years PM experience (within the last five years)	2025644599		herzfeld.jackye@epa.gov	Yes			N/A				Omit Synchronization
	00001	Budget	Design,	01/01	06/30	392	Iterative	Jack	No	20256		herzfeld.jack	Yes		06/13/	N/A				Omit

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life Cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
	0070F	Formulation System - Phase 5: Doc Prep / Performance Modules	develop, and test additional EPA required functionalities	/2017	/2017		e	ye Herzfeld (retired)	certification, but with 4 or more years PM experience (within the last five years)	44599		ye@epa.gov			2017					Synchronization
	00001 0070G	Budget Formulation System - Phase 6: Doc Prep / Performance / Security Build Out & Scenario Building	Design, develop, and test additional EPA required functionalities	07/01 /2017	12/31 /2017	321	Iterative	Jack ye Herzfeld (retired)	No certification, but with 4 or more years PM experience (within the last five years)	20256 44599		herzfeld.jack ye@epa.gov	Yes		12/28/ 2017	N/A				Omit Synchronization
	00001 0070H	Budget Formulation System - Phase 7: Security Build	Design, develop, and test additional EPA required functionalities	01/01 /2018	06/30 /2018	250	Iterative	Jack ye Herzfeld (retired)	No certification, but with 4 or more years PM	20256 44599		herzfeld.jack ye@epa.gov	Yes		05/04/ 2018	N/A				Omit Synchronization

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
		Out & Scenario Building / Core Functionalities / Performance Program Project & Appropriation Linking / Mapping Performance PGs & PIs							experience (within the last five years)											
	0000100701	Budget Formulation System - Phase 8: Core Functionalities Phase 2 / Performance Bidding History /	Design, develop, and test additional EPA required functionalities	07/01/2018	09/30/2018	125	Iterative	Edward Cottrell	No certification, but with 4 or more years PM experience (within the last five years)	2025645002		cottrill.edward@epa.gov	Yes		07/27/2018	N/A				Omit Synchronization

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
		Original Requirements Phase 1																		
	000010070J	Budget Formulation System Training and Preliminary Data Entry	To get users accustomed to the system, while allowing them to enter data alongside BAS.	10/01/2015	11/30/2017	30	Not Primarily a Software Development Project	Jackye Herzfeld (retired)	No certification, but with 4 or more years PM experience (within the last five years)	2025644599		herzfeld.jackye@epa.gov	N/A			N/A				Omit Synchronization
	000010070K	Original Requirements Phase 2 / System Interface / Budget Execution / Flexible Structure / Crosswalks / Bulk	Design, develop, and test additional EPA functionalities original requirements. We will also finalize work related to areas where execution data is needed/provided since the hosting analysis/ne	10/01/2018	03/30/2019	36	Iterative	Edward Cottrell	No certification, but with 4 or more years PM experience (within the last five years)	2025645002		cottrill.edward@epa.gov	Yes			N/A				Omit Synchronization

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
		Data Operations / Data Migration	xt steps will impact those tasks (reprogramming, flexible structure and crosswalks, as well as some data management items such as bulk data operations and migration of data from BAS). For performance there will be work related to Performance dashboard, and there is some additional work needed on audit trails and utility forms. These are all part of original requirements set.																	
	00001	Original	Design,	04/01	09/30	36	Iterative	Edw	No	20256		cottrill.edwa	Yes			N/A				Omit

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life Cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
	0070L	I Requirements Phase 3 / System Interface / Budget Execution / Flexible Structure / Crosswalks / Bulk Data Operations / Data Migration	develop, and test additional EPA functionalities original requirements. We will also finalize work related to areas where execution data is needed/provided since the hosting analysis/next steps will impact those tasks (reprogramming, flexible structure and crosswalks, as well as some data management items such as bulk data operations and migration of data from BAS). For performance there will be work	/2019	/2019		e	ard Cottrell	certification, but with 4 or more years PM experience (within the last five years)	45002		rd@epa.gov								Synchronization

OMB ID	Project ID	Project Name	Objectives / Expected Outcomes	Project Start Date	Project Completion Date	Project Life cycle Cost	SDLC Methodology	PM Name	PM Level of Experience	PM Phone	PM Extension	PM Email	Release Every 6 Months?	Comment	When was the last date that a revised product was deployed to production?	Funded by TMF or IT WCF Funding	Commercial Solution(s) Adoption	Commercial Solution(s) Reasoning	Commercial Solution(s) Costs	Include In OMB Dashboard
			related to Performance dashboard, and there is some additional work needed on audit trails and utility forms. These are all part of original requirements set.																	

Project Activities

Master Cost & Schedule: Comparison of Actual Work Completed and Actual Costs to Current Approved Baseline This table represents milestones at Work Breakdown Structure level 1	* Costs in thousands
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Activity Number	Is Complete	Project **	Activity Name*	Activity Description **	Structure ID**	OMB ID*	Current Baseline									Include In ITDB		
							Total Cost			Start Date			Completion Date					
							Planned **	Projected	Actual	Planned **	Projected	Actual	Planned **	Projected	Actual			

Project and Operational Risks

Project and Operational Risks

OMB ID	Risk Type	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Is This Risk Closed?	Include in IT Dashboard
	Operational Risk		Relationship with other financial systems	Dependencies and Interoperability between this investment and others	Low	Low	Maintain and ensure working relationship between BFS and other financial systems	No	Omit Synchronization
	Operational Risk		Security Risks	Security	Low	Low	The Information Security Officer maintains internal controls, security updates, and system security plan	No	Omit Synchronization
	Operational Risk		Server down time	Technology	Low	Low	In case the server goes down, the backup test server will be used, followed by the server in RTP, followed by physically going to Keylogic Systems in Columbia, Maryland.	No	Omit Synchronization
	Operational Risk		Sensitive budget data	Data/Info	Low	Medium	Ensure proper controls are in place and the correct security measures are taken.	No	Omit Synchronization
	Project Risk	Budget Formulation System (BFS) - Requirements Gathering	Scheduled Development Delays Due to Funding	Schedule	Low	Low	Maintain the current BAS system for agency operations	No	Omit Synchronization
	Project Risk	Budget Formulation System (BFS) - Requirements Gathering	Unexpected Personnel Changes	Project resources	Low	High	Replace with personnel who have experience in the development stage of SDLC.	No	Omit Synchronization
	Project Risk	Budget Formulation System (BFS) - Requirements Gathering	Hosting Acquisition Issues	Technology	Medium	High	Use Citrix temporarily, or find another cloud provider.	No	Omit Synchronization

Operational Performance Data

Operational Performance Metrics

Provide results specific metrics which are appropriate to the mission of the investment and its business owner or Customer. Generally these metrics should be provided by the investment's business owner and will reflect performance in the broader business activities and not IT-specific functions. The best results specific metrics will support the business case justification and could be the foundation of a quantitative approach to defining benefits in a cost-benefit analysis. Unlike in private industry where identified benefits accrue to the organization, government benefits may accrue to the public. Therefore, results-specific metrics may demonstrate the value realized external to the Federal Government. The table must include a minimum of two results-specific metrics, one of which should reflect customer results.

Each metric description should help the user understand what is being measured. In this field, describe the units used, any calculation algorithm used, and the definition or limits of the population or "universe" measured.

The unit of measure should be characterized (e.g. number, percentage, dollar value etc) for each metric. Each metric listed in the table must also indicate how often actual measurements will be reported (monthly, quarterly or semi-annually), as well as baseline, targets and actual results. The "Actual for PY" should be final actual measurement from the previous year or the average actual results from the previous year. Describe whether a successful actual measurement would be "over the target" or be "under the target" in "Measurement Condition." "Comment" field is required for performance metrics where target not expected to be met. All data will be displayed on the IT Dashboard.

Operational Performance

OMB ID	Metric ID	Metric Name	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	Target for 2018	Target for 2019	Measurement Condition	Reporting Frequency	Agency Strategic Objective or Priority Goal	Is the Metric Retired?	Include In OMB Dashboard
	A	Financial Actuals Reporting	Financial actuals reporting (e.g. SNC) completed accurately and on time each quarter	Quarterly Reports	Customer Satisfaction (Results)				Over target	Quarterly		No	Omit Synchronization
	C	External Budget Submissions	External budget submissions (OMB) are created and submitted on schedule.	Submissions	Strategic and Business Results				Over target	Annual		No	Omit Synchronization
	D	Final End of Month Actual Results	Compile the final end of month actual results in BAS.	Data Type	Customer Satisfaction (Results)				Over target	Monthly		No	Omit Synchronization
	B	Availability of Cloud	The availability of the Microsoft Azure cloud will need to be available at all times in order for BFS to operational.	Percent	Customer Satisfaction (Results)				Over target	Annual		No	Omit Synchronization
	E	Cloud Costs	The Microsoft Azure cloud is relatively inexpensive, while offering exclusive government services.	Dollars	Financial Performance				Under target	Annual		No	Omit Synchronization

As actual results are measured at the appropriate frequency, report them using the following table. Also use this table when applicable to provide any historical actual results for a new metric (optional). When adding a new metric, include historical actual result information as available.

Operational Performance Actual Results Table

OMB ID	Performance Metric	Actual Result	Date of Actual Result	Comment	Include on IT Dashboard
	Financial Actuals Reporting	N/A	5/18/2015	BFS is not operating, therefore no actual results are available at this time.	Omit Synchronization
	External Budget Submissions	N/A	5/18/2015	BFS is not operating, therefore no actual results are available at this time.	Omit Synchronization
	Final End of Month Actual Results	N/A	5/18/2015	BFS is not operating, therefore no actual results are available at this time.	Omit Synchronization
	Availability of Cloud	N/A	5/18/2015	BFS is not operating, therefore no actual results are available at this time.	Omit Synchronization
	Cloud Costs	65000	5/18/2015		Omit Synchronization

EPA 200 Compliance

EPA 200 Compliance Comments

EPA 200 Compliance Comments

Kimberly Dubbs sent compliance on 4/25/2016